Research for the variables behind Customers' Repurchase Intention to the Craft Beer

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Abstract: With the upgrade of consumption level, craft beer has attracted growing attention and appreciation from consumers. This study has investigated the influence of brand image, perceived service quality, beer flavor diversity, and price rationality on customers' repurchase intention, along with the mediating role of customers' satisfaction in the aforementioned relationships. The study was conducted in Wuhan, Hubei Province, used a Likert-scale questionnaire as the main body of the questionnaire. IBM SPSS STATISTICS 19 software (SPSS Inc., Chicago, IL, USA) was used for data analysis. The results revealed the positively of brand image, perceived service quality, beer flavor diversity, and price rationality on customers' repurchase intention, along with the mediating role of customers' satisfaction in the aforementioned relationships. This study also found that brand image occupies a dominant position in the variables that promote the customers' repurchase intention in the craft beer industry. The results of study contributed to an understanding of craft beer consumption behavior.

Keywords: craft beer; customers' repurchase intention; customers' satisfaction; brand image; perceived service quality; beer flavor diversity; price rationality

1. Introduction

Different from traditional industrial beer, craft beer stands as a unique category in the field of beer[1].With the upgrade of consumption level, it has attracted growing attention and appreciation from consumers. The craft beer market has seen surprising growth over the past 35 years[2].The previous studies carried on craft beer have been focused on microbe[3, 4] , yeast strains[5–8], spectrum[9, 10],acids[11, 12], mycotoxins[13–16], malt[17], spices[18 19], and brewing technology and equipment[20]. Compared with industrial beer, the drinking habits of craft beer change dramatically over the years[21].Typical drinkers of craft beer are well-educated young people with above-average income[22].With the increase in the number of craft beer lovers, the average price of products related to craft beer sold in the market is also on the rise[23].Demographic variables have also been employed in beer research, including gender, age, education level and country[24],but few studies have investigated demographic variables specifically for craft beer consumers. In addition, the published data on the consumption behavior of craft beer in traditional brewing countries, such as Belgium and Ireland, account for less than 2.2% of the research data of the beer industry[22].In recent years, a handful of scholars have explored the influence of prohibition norms, descriptive norms, attitude and behavioral control on alcohol identity, purchase intention[25],and the relationship between glass shape and sales volume and beer[26].But the re-purchase intention of craft beer has remained uninvolved.

Expectation confirmation model was initially proposed by Richard L. Liver in 1980[27].As one of the most influential and representative models between customers' satisfaction and repurchase intention, this model has been widely used in related studies on satisfaction and repurchase intention[28–31].When a customer purchases a certain product or service, he/she will compare the actual situation of the product or service with his/her relevant experience and inner expectation of the purchase. The model shows changes in customers' satisfaction, which is an important reference for the next repurchase[32].In addition, satisfaction is directly related to customer loyalty, to which has been attached great importance by researchers in the mid-1900s.In order to keep the customers' loyalty to the products and brand at a relatively high level, building the brand is necessary[33].Previous studies have also found that perceived

price, food, service and physical environment have a positive impact on customers' satisfaction[34].Brand image plays a greater role in improving consumers' intention to repurchase and in boosting word of mouth marketing than customers' satisfaction[35].In addition, the study has revealed that the surrounding environment affects the behavior and perceived sensory characteristics of food and beverage[1],one of the key variables affecting customers' repurchase behavior is consumers' perceived service quality[36].The combination of good product quality and fair prices usually leads to a higher level of customer engagement and affects satisfaction and repurchase intentions. Meeting customer expectations for beer tasting can lead to positive public praise and increase the likelihood of repeat purchase[37].

Although previous studies have maintained that the demand and purchase of alcoholic products are decided by a variety of influencing variables, rarely research accurately targeted at craft beer consumers has been released so far. The survey on craft beer can be reviewed by now merely digs into such aspects as the microorganism fermentation and chemical reactions. However，rarely research to verify satisfaction in price rationality, perceived service quality, store atmosphere, beer flavor diversity, catering satisfaction, brand image and variables playing an mediating role in repurchase intention of craft beer. Therefore, the following research questions are brought up: Do price rationality, perceived service quality, store atmosphere, beer flavor diversity, catering satisfaction and brand image influence craft beer customers' repurchase intention? Does customers' satisfaction play a mediating role between price rationality, perceived service quality, store atmosphere, beer flavor diversity, catering satisfaction, brand image and craft beer customers' repurchase intention?

2. Materials and Methods

2.1 Hypothesis and Research Model

Through literature reading and qualitative interviews, it was found that the possible variables influencing craft beer customers' repurchase intention include price rationality, perceived service quality, store atmosphere, beer flavor diversity, catering satisfaction and brand image. Accordingly, the following hypotheses and conceptual framework (Figure 1) were posited to understand the relationships among these variables:

Hypotheses 1 (H1): price rationality positively affects customers' satisfaction

Hypotheses 2 (H2): store atmosphere positively affects customers' satisfaction

Hypotheses 3 (H3):perception of service quality positively affects customers' satisfaction

Hypotheses 4 (H4): beer flavor diversity positively affects customers' satisfaction

Hypotheses 5 (H5): meal satisfaction positively affects customers' satisfaction

Hypotheses 6 (H6): brand image positively affects customers' satisfaction

Hypotheses 7 (H7): customers' satisfaction positively affects customers' repurchase intention

Hypotheses 8(H8a): customers' satisfaction plays a mediating role in price rationality and customers' repurchase intention

(H8b): customers' satisfaction plays a mediating role in store atmosphere and customers' repurchase intention

(H8c): customers' satisfaction plays a mediating role in perceived service quality and customers' repurchase intention

(H8d): customers' satisfaction plays a mediating role in beer flavor diversity and customers' repurchase intention

(H8e): customers' satisfaction plays a mediating role in catering satisfaction and customers' repurchase intention

(H8f): customers' satisfaction plays a mediating role in brand image and customers' repurchase intention

2.2 Sample and Data Collection

This study was conducted in Wuhan, Hubei Province, China, and the questionnaire data were collected from February 5 to March 5, 2021. The questionnaire used a Likert-scale questionnaire as the main body of the questionnaire, and collected data based on the preliminarily established conceptual framework assumptions. Price rationality, perceived service quality, store atmosphere, beer flavor diversity, catering satisfaction and brand image were used as independent variables, customers' satisfaction was used as mediating variable, and customers' repurchase intention was used as dependent variable to explore the influencing variables of repurchase intention of craft beer customers. In order to ensure the reliability of the questionnaire, a set of reverse setting questions were used to identify whether the questionnaire was valid, so as to exclude invalid samples. After the completion of the questionnaire, a small range of pre-survey was done. A total of 32 questionnaires were

issued in the pre-survey, and 32 valid questionnaires were collected and analyzed. By March 5, 2021, a total of 435 questionnaires have been collected. 149 invalid questionnaires were removed, and the remaining 286 valid questionnaires were collected, with an effective recovery rate of 65.75%. The scale used to measure variables has been proven to have internal reliability and convergent validity. These scales are widely used in many academic studies and t represent the scientific nature of model construction[38, 39].The questionnaire consisted of eight sets of questions, all of which used a Likert scale ranging from 1(strongly disagree) to 5(strongly agree).

2.3 Statistical Analysis

IBM SPSS STATISTICS 19 software (SPSS Inc., Chicago, IL, USA) was used for data analysis of valid questionnaires. First, conduct a frequency analysis to determine the demographic characteristics and background of these studies. Secondly, the reliability and validity of the variables were analyzed to determine the mean and standard deviation of the variables. Third, we used one-way ANOVA comparisons between demographic data and research variables. Next, bootstrap method was incorporated to test the mediating effects and differences between research variables and customers' repurchase intention. Finally, revise the hypothetical model. The level of significance was set top<0.05.

3. Results

3.1 Demographics

As shown in Table 1,166 (58.0 %) were female and 120 (42.0 %) were male. In terms of age distribution, the respondents aged 21-30 were the most, with 176 (61.5 %), followed by those aged 31-40, with 81 (28.3 %). Most of the respondents were highly educated, with 58.7 % having bachelor's degrees and 25.2 % having master's degrees. In terms of monthly income, respondents with a monthly income of 4,001-6,000 RMB accounted for the most (20.6 %), followed by those with a monthly income of 6,001-8,000 RMB (16.1 %). In terms of monthly consumption on craft beer, those who spend less than 400 RMB account for the most (56.3 %), followed by those who spend 401-600 RMB (17.8 %).

3.2 Validity and reliability analysis

The validity and reliability analysis were shown in Table 2. The degree of

commonality extracted for each item is greater than 0.7. Validity test was performed on customers' repurchase intention, the result of Kaiser-Meyer-Olkin (KMO) test statistics was 0.766, and the value of Bartlett's Test of Sphericity(P<0.0000) were effective. Rotated component matrix, the load of each item was only on one path and greater than 0.5. The cumulative variance explanation rate was 88.075 % (>50 %). Cronbach Alpha have values between 0.871 and 0.938. From the standard deviation point of view, the standard deviations of the six independent variables are all between 0.820 and 0.969. The standard deviation of the dependent variable customers' repurchase intention exceeds 1, reaching 1.045, showing a certain degree of polarization.

3.3 Analysis between demographic and variables

From a gender perspective, women were more sensitive than men in terms of price rationality, store atmosphere, perceived service quality, beer flavor diversity, catering satisfaction, and brand image (Figure 2a). Age and lever of education variables had no significant influence on the six variables of price rationality, store atmosphere, perceived service quality, beer flavor diversity, catering satisfaction and brand image (Figure 2b, c).

From the perspective of monthly income, customers with a monthly income of less than 4,000 RMB had a significantly higher perception of store atmosphere and brand image than customers with a monthly income of more than 10,000 RMB, customers with a monthly income of less than 6,000 RMB have a significantly higher perception of their repurchase intention than those monthly income of more than 10,000 RMB. Customers with a monthly income of less than 8,000 RMB are more likely to gain satisfaction in the consumption process than those with a monthly income of more than 10,000 RMB. Customers with different monthly incomes had no significant differences in price rationality, service quality and perception of beer flavor diversity (Figure 2d).

In terms of monthly consumption on craft beer, there was no significant difference in the perception of price rationality and store atmosphere among customers who consume craftsmanship in different months. Customers whose monthly consumption on craft beer is 401-800 RMB were significantly more sensitive to beer flavor diversity, brand image, customers' satisfaction, repurchase intention and perceived service quality than customers whose monthly consumption on craft beer was less than 400 RMB, and their sensitivity to perceived service quality was also higher than

customers whose monthly consumption on craft beer was more than 1000 RMB. Customers who spend 401-600 RMB on craft beer per month were more likely to get satisfaction in the consumption process than customers who spend less than 400 RMB on craft beer every month (Figure 2e).

3.4 Mediating Analysis

We did more than 5000 simulation samples based on the sample. Table 3 shown the direct and indirect effects of the mediating variable. Customers' satisfaction played a complete mediation role in price rationality, perceived service quality, beer flavor diversity and customers' repurchase intention, played a partial mediation role in brand image and customers' repurchase intention. As for the store atmosphere and catering satisfaction, there was no mediating effect. The degree of influence of various research variables on customers' repurchase intentions, in order from largest to smallest, was brand image, perceived service quality, beer flavor diversity, and price rationality. Hypothesis whether verification was shown in Table 4.

4. Discussion

4.1 Theoretical and Practical Implications

This studied the influencing variables of customers' repurchase intention in craft beer and whether customers' satisfaction has an mediating effect between the variables and repurchase intentions. Revise the hypothetical framework based on the data results (Figure 3).

Previous studies have found that in the coffee chain industry, brand image[35] and perceived service quality[36] are two main variables to improve consumers' repurchase intention. Similarly, in this study, we found that brand image and perceived service quality also play an important role in improving consumers' repurchase intention in the craft beer industry (Figure 3). It is worth noting that customers' satisfaction plays a partial mediating role between brand image and customers' repurchase intention, that is, brand image not only positively affects repurchase intention through customers' satisfaction, but also directly positively affects repurchase intention. Among the various variables in this studied, brand image has the greatest impact on customers' repurchase intentions.

In the modified conceptual framework, store atmosphere and catering satisfaction

don't affect customers' satisfaction positively. The possible reason is that the questionnaire was collected after the Wuhan epidemic isolation was unblocked. Some scholars have proposed that the pandemic of COVID-19 has forced consumers to change their consumer perceptions and behaviors[40],consumers' perception of store atmosphere and catering satisfaction have changed.

Among the demographic variables, there were only 3 questionnaires over the age of 50, which is a small number from a statistical point of view. The possible reason is that craft beer is a niche high-end trade, it is widely welcomed among young people with middle and high incomes[22]. Furthermore, most of the participants in the questionnaire are Chinese and craft beer has only been in China for about 10 years, liquor is still the most commonly drunk by middle-aged and elderly consumers[41].With the passage of time and the development of the craft beer industry, the data of consumers over the age of 50 may continue to increase.

4.2. Limitations and Future Research Directions

First, the questionnaires were administered online. Although invalid questionnaires have been eliminated, the collected sample population may be biased. Second, due to the sudden outbreak of the COVID-19, there was no time to collect the data of variables before COVID-19 for comparison. Finally, most of the questionnaire collection objects are from Wuhan area, in follow-up studies, researchers can conduct more extensive, nationwide sampling to improve the generalizability of the findings.

5. Conclusion

This study has investigated the influence of brand image, perceived service quality, beer flavor diversity, and price rationality on customers' repurchase intention, along with the mediating role of customers' satisfaction in the aforementioned relationships. The results showed that brand image occupies a dominant position in the variables that promote the customers' repurchase intention in the craft beer industry. We believe this study strengthens the research on consumer behavior in the craft beer field, and has reference value for craft beer practitioners.

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